



CLEAN VERSION OF ABSTRACT

VIA-IN-PAD WITH OFF-CENTER GEOMETRY (as amended)

Applicant: Phil Geng et al.

Serial No.: 09/751,614


COPY OF PAPERS
ORIGINALLY FILED

RECEIVED

MAY 30 2002

TECHNOLOGY CENTER 2800

Abstract of the Disclosure

The electrical contacts, such as ball grid array (BGA) solder balls, of an integrated circuit are coupled to printed circuit board (PCB) bonding pads that include vias. According to one embodiment of an electronic assembly, the vias are formed off-center, so as to inhibit bridging between adjacent solder balls during a solder reflow operation by minimizing the effect of solder ball ballooning resulting from outgassing of a thermally expansive substance, such as a volatile organic compound (VOC) from the via channels. A substrate and an electronic system are also described.